

L-45578-00

ACC NR: AP6030986

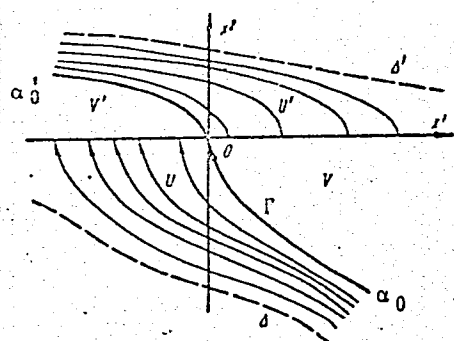


Fig. 1.

semitrajectory α_0' , it is assumed that $u = -1$ and at points located under the Γ and on the semitrajectory α_0 , it is assumed that $u = +1$. [LK]

SUB CODE: 01 12/ SUBM DATE: 28May65/ ORIG REF: 002/ ATD PRESS: 5082

ROYTENBERG, Ye.Ya. (Moskva)

Problem of optimal control. Izv. AN SSSR. Tekh. kib. no.1:182-186
Ja-F '65. (MIRA 18:4)

ANDREYEV, Viktor Fedorovich, kand. ekon. nauk; BANNYY, Nikolay Pavlovich, dots., kand. ekon. nauk; GORELIK, Iosif Grigor'yevich, dots., kand. ekon. nauk [deceased]; KATYSHEV, Viktor Leonidovich; OBLOMSKIY, Yakov Antonovich, dots., kand. ekon. nauk; PEKELIS, Isay Borisovich, ...
 PINEGIN, Ivan Ivanovich; PRIYMAK, Ivan Andreyevich, prof., doktor tekhn. nauk [deceased]; ROYTBURD, Lazar' Nisonovich, prof., doktor ekon. nauk; ROMANOVICH, Nikolay Dmitriyevich; BORDIN, M.M., retsenzent; BRYUKHANENKO, B.A., dots., kand. ekon. nauk, retsenzent; KHUTORSKAYA, Ye.S., red.izd-va; KARASEV, A.I., tekhn. red.

[Economics of ferrous metallurgy in the U.S.S.R.] Ekonomika chernoi metallurgii SSSR. [By] V.F.Andreev i dr. Pod red. L.N.Roitburda i N.P.Bannogo. Moskva, Metallurgizdat, 1963. 384 p. (MIRA 16:5)
 (Iron industry) (Steel industry)

KUZNETSOV, Ye. V.; VALETIDINOV, R. K.; ROYTBURD, TS. Ya.

Synthesis of aliphatic phosphorus containing dicarboxylic acids.
Zhur. ob. khim. 33 no.1:150-153 '63. (MIRA 16:1)

1. Kazanskiy khimiko-tekhnologicheskii institut imeni
S. M. Kirova.

(Phosphorus acids)

S/081/62/000/021/027/069
B117/B101

AUTHORS: Roytburd, Ts. Ya., Valetdinov, R. K.

TITLE: Synthesis of tetrahydroxymethylene phosphonium chloride and its reactions

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 21, 1962, 204, abstract 21Zh238 (In collection: Materialy 1-y Konferentsii molodykh nauchn. rabotn. g. Kazani, 1959, Sekts. khim. Kazan', 1960, 91 - 97)

TEXT: A method was developed for decomposing metal phosphides (Al, Cu, etc.) with water. The method consists in adding water to a liquid suspension (CH_3OH , alcohol, acetone, etc.) of AlP . Vigorous stirring during the reaction of PH_3 with CH_2O and HCl gives $(\text{HOCH}_2)_4\text{PCl}$ (I) which, together with BaCO_3 , is converted into $(\text{HOCH}_2)_3\text{PO}$ (II) and, together with Na_2CO_3 , into $(\text{HOCH}_2)_2\text{POOH}$ (III). Polycondensation with dibasic acids becomes increasingly difficult in the order III, II, I, resulting in the formation of fusible, transparent resins with obviously linear structure. These self-

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S/081/62/000/021/027/069
B117/B101

Synthesis of tetrahydroxymethylene...

extinguishing resins are soluble in organic solvents. 355 g of finely ground AlP and 350 ml of acetone are put into a reaction vessel, after which N₂ is bubbled through the apparatus for 10 min. 355 ml of water is added in drops while stirring. PH₃, together with 850 g of 35% CH₂O and 270 ml of 35% HCl, is filled into the reaction vessel with a stirrer until a specific gravity of 1.130 is reached. Finally, the solution is boiled down in vacuo at ~80°C until the residue crystallizes (yield of I, 99.9% (in relation to CH₂O); m.p., 151°C (from alcohol)). 1 mole of I mixed with 0.5 mole of BaCO₃ in 0.2 l water is boiled for 6 hrs, the filtrate being evaporated in vacuo. II is extracted from the residue with 150 ml of absolute alcohol (yield of II, 80%; m.p., 44 - 45°C (from alcohol; very hygroscopic). 190.5 g of I and 106 g of NaCO₃ are boiled in 0.2 l of water for 8 hrs, whereupon the water is distilled off. Using 100 ml of concentrated HCl, the oily compound III is extracted from the residue, with a yield of 84.5%. 14 g of II and 1.5 g of phthalic anhydride are kept at 120°C for 4 hrs and, at the end of the reaction, the temperature is raised to 180°C. Thus a solid, transparent, vitreous, yellowish resin was

ROYTEURD, Z.G., assistant

Effective axis of three-hinged arches in the Maillart system.
Trudy DIIT no.32:198-207 '61. (MIRA 16:2)
(Bridges, Arched)

OLIFER, A.I., assistant; ROYTBURD, Z.G., assistant; SMETANIN, V.A.,
assistant

Experimental study of the effect of railroad cars on bridges.
Trudy DIIT no.32:24-31 '61. (MIRA 16:2)
(Railroad bridges--Testing)

ROYTENBERG, Ya.N. (Moskva)

Some problems in the theory of dynamic programming for nonlinear
systems. Prikl. mat. i mekh. 26 no.3:418-430 My-Je '62.
(MIRA 16:5)
(Programming (Mathematics))

ROYTENBERG, Ya.N. (Moskva)

Reducing certain dynamic programming problems for nonlinear systems
to transcendental equations. Prikl. mat. i mekh. 26 no.5:950-952
S-O '62. (MIRA 15:9)

(Programming (Mathematics))

ROYTENBERG, Ya.N. (Moskva)

Determining the position of a controllable nonlinear pulsed
system in phase space. Prikl. mat. i mekh. 26 no.6:1136-1140
N-D '62. (MIRA 16:1)
(Automatic control) (Difference equations)

Roytenburd, S. R.

"Experience in treating cases of endarteritis obliterans with
the "Elektroson" apparatus designed in NII EKHA I." Novye khirurgicheskie
apparaty i instrumenty i opyt ikh primeneniya, No. 2, ~~1961~~, p. 66
1958

ROYTER, A.V. (Kiyev)

E-systems of representations. Ukr. mat. zhur. 17 no.2:88-96
'65. (MIRA 18:5)

ROZANOVA, L. S. Cand Biol Sci -- (diss) "Study of the hypotensive properties of iron under conditions of experimental renal hypertension (On the problem of the role of ferritin)." Mos, 1959. 16 pp (Mos Order of Lenin and Order of Labor Red Banner State Univ im M. V. Lomonosov), 110 copies (KL, 43-59, 122)

ZARETSKIY, I.I.; MIKHAYLOVA, I.A. [deceased]; ROZANOVA, N.S.

Functional state of the kidneys in blood transfusion in dogs with
a damaged thalamohypothalamic region. Probl.gemat.i perel.krovi
4 no.12:34-37 D '59. (MIRA 13:4)

1. Iz patofiziologicheskoy laboratorii (zaveduyushchiy - chlen-
korrespondent AMN SSSR prof. N.A. Fedorov) Tsentral'nogo ordena
Lenina instituta gematologii i perelivaniya krovi (direktor -
deystvitel'nyy chlen AMN SSSR prof. A.A. Bagdasarov) Ministerstva
zdravookhraneniya SSSR.

(BLOOD TRANSFUSION exper.)

(KIDNEYS physiol.)

(THALAMUS physiol.)

(HYPOTHALAMUS physiol.)

GINDIN, L.M.; KOPP, I.F.; ROZEN, A.M.; BOBIKOV, P.I.; KOUBA, E.F.;
TER-OGANESOV, N.A.

Extraction equilibria for cobalt, nickel, and certain metals.
Zhur.neorg.khim. 5 no.1:149-159 Ja '60. (MIRA 13:5)

1. Noril'skiy gornometallurgicheskiy kombinat im. A.P.
Zavenyagina, Opytno-issledovatel'skiy tsekh.
(Extraction (Chemistry)) (Metals)

16.7000

77984
SOV/40-24-1-12-28

AUTHOR: Roytenberg, Ya. N. (Moscow)

TITLE: Setting a Gyrocompass to the Meridian During the Starting of Gyroscopic Rotors

PERIODICAL: Prikladnaya matematika i mekhanika, 1960, Vol 24, Nr 1, pp 88-92 (USSR)

ABSTRACT: In a previous article, (Priklad. matem. i mekh., 1959, Nr. 5), the author showed that by suitably imposed generalized external forces applied to the gyrocompass, the return to the meridian can be effected during some preassigned interval of time. Moreover, it is expedient to begin the return to the meridian at the time the rotors of the gyro are started. In this paper, the resultant gyroscopic moment is assumed to be a known function of time, $H = H(t)$. The analysis is limited to precession and starts from the equations for the three generalized coordinates α, β, θ which are obtained by dropping the terms involving $\dot{\alpha}$ and $\dot{\beta}$ in the second

Setting a Gyrocompass to the Meridian During
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turn of the gyrocompass in azimuth, β is the angle of the northern diameter of the gyrosphere above the horizon plane, and θ is the angle between the liquid surface of the hydraulic damper and the gyrosphere equatorial plane. The generalized force to be applied (and determined) is the torque $Q(t)$, which is a moment relative to the eastern diameter of the gyrosphere, and appears as a forcing term in the equation for Q . A solution of the system is written down in terms of a fundamental matrix solution $\Theta(t)$ of the homogeneous system and general initial conditions. This in turn is used to obtain conditions where an equilibrium state is achieved at some time $t = T$. This leads to the integral equation for $Q(t)$:

$$\int_0^T N_{ij}(T, z) \frac{Q(z)}{H(z)} dz = R_i(T) \quad (i = 1, 2, 3) \quad (2.5)$$

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$$R_i(T) = \sum_{k=1}^3 N_{ik}(T, 0) z_k(0) - U \sin \varphi \int_0^T N_{i1}(T, \tau) d\tau - z_i \quad (i = 1, 2, 3) \quad (2.4)$$

Here, $N(t, \tau)$ is the matrix $\theta(t) \theta^{-1}(\tau)$, z is the vector (α, β, θ) , φ is the latitude of observation, and z^* corresponds to the equilibrium state (actually stationary motion). This integral equation is solved approximately by dividing the interval $(0, T)$ into three equal subintervals, in each of which it is assumed that $Q(t)$ is constant. The integral equation is thus reduced to a system of three linear algebraic equations whose solution is given in determinant form. This solution contains the functions $N_{j1}(T, \tau)$ and $N_{j\xi}(T, 0)$ ($j, \xi = 1, 2, 3$) which are assumed to be known functions and which can be determined as the solution of the system of equations adjoining the starting system

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Setting a Gyrocompass to the Meridian During
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for z . One numerical example is discussed for which
 $T = 1,800$ sec. For given initial deviations, i.e.,
 $z(0)$, the value $Q(t)$ on the three intervals is determined.
There is one table; and 2 Soviet references.

SUBMITTED: November 10, 1959

Card 4/4

ROYTENBERG, Ye.

Automatization of sausage production. Mias. ind. SSSR 29
no.5:48 '58. (MIRA 11:10)

1. Glavnyy inzhener Karagandinskogo myasokombinata.
(Sausages)

ROYTENBERG, Ya.N. (Moscow)

Method of setting up Liapunov's functions for linear systems with
variable coefficients. Prikl. mat. i mekh. 22 no.2:167-172 Mr-Apr '58.
(MIRA 11:7)

(Differential equations, Linear) (Stability)

LIYK, Rol'f Vladimirovich; ROYTENBERG, Yefim Mikhaylovich; EYDEL'MAN,
L.Ya., otv.red.; KIRILLOV, L.M., red.; SHEFER, G.I., tekhn.red.

[ATS-54 automatic ten-step telephone exchange] Avtomaticheskaya
telefonnaya stantsiya dekadno-shagovoy sistemy ATS-54. Moskva,
Gos.izd-vo lit-ry po voprosam svyazi i radio, 1959. 112 p.

(MIRA 13:4)

(Telephone, Automatic)

6 (7)

SOV/111-59-10-9/23

AUTHOR: Roytenberg, Ye.M., Engineer, Chief
Goryachev, V.A., Senior Engineer

TITLE: RSL Assemblies for Two-conductor Connecting Links of
Great Length

PERIODICAL: Vestnik svyazi, 1959, Nr 10, pp 14-15 (USSR)

ABSTRACT: This article is concerned with the expediency of using RSL assemblies for two conductor connecting links of great length on large city telephone networks (GTS); these RSL units are presently in serial production. They were developed by the Nauchno-issledovatel'skiy institut gorodskoy i sel'skoy telefonnoy svyazi ministerstva svyazi SSSR (Scientific-Research Institute for Municipal and Rural Telephone Communications of the Ministry of Communications of the USSR) and the konstruktorskoye byuro zavoda "Krasnaya Zarya" (Design Office of the "Krasnaya Zarya" Works). The authors outline and discuss the usual criteria for selecting cable conductor diameter on small networks, taking into account the attenuation and ohmic resistance norms guaranteeing good performance. However,

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RSL Assemblies for Two-conductor Connecting Links of Great Length

in dealing with larger networks with a greater number of long connecting links these criteria are unacceptable; although attenuation norms can be satisfied on small diameter conductors, ohmic resistance norms can only be met by increasing lead diameter, and this in turn leads to exceeding the norm for capacitance. Solution of this problem is possible with the RSL units, and it is in connection with the planning of large municipal telephone networks that production of the RSL units becomes important, state the authors. These units also provide for correction of dialing impulses and relay of of intercommunications signals, which, it is stated, practically speaking doubles the operating range limits of ATS equipment. These correction and relay processes take place in the input section of the assembly, containing nine relays; the less complicated output section contains three relays. The input section can also be used independently for relaying inter-communication signals on three conductor connecting links.

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SOV/111-59-10-9/23

RSL Assemblies for Two-conductor Connecting Links of Great Length

ASSOCIATION: Laboratoriya nauchno-issledovatel'skogo instituta telefonnoy svyazi (NIITS) (Laboratory of the Scientific-Research Institute of Telephone Communications)

Card 3/3

ROYTENBERG, Ya.N. (Moskva)

Motion of gyroscope instruments under the effect of accidental
forces. Prikl.mat.i mekh. 24 no.3:463-472 My-Je'60.

(MIRA 13:10)

(Gyroscope)

Roytenberg, Ye. M.

STATIONS & COMMUNICATION SYSTEMS

"Fundamental Operational-Technical Data on the Modernized ATS-l7 Equipment," by Ye. M. Roytenberg, Engineer, Chief of the Laboratory of the Institute of Scientific Research for Telephone Communication. Vestnik Svyazi, No 7, July 1957, pp 3-5.

Description of the improvements made to the ATS-l7 system to increase the range, to permit automatic interurban dialing, to compute the telephone traffic load, to improve the ring-off operation, and to make general improvements to all types of the equipment.

Card 1/1

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ROYTENBERG, Ye.M., inzhener.

Basic operating and technical data for the improved automatic
telephone equipment (ATS-47). Vest. svyazi 17 no. 7:3-5 J1 '57.
(MIRA 10:8)

1. Nachal'nik laboratorii Nauchno-issledovatel'skogo instituta
telefonnoy svyazi.

(Telephone, Automatic)

ROYTENBERG, Z.M.

Utilizing an anti-run mechanism for producing patterned hosiery
products. Leg.prom. 14 no.11:42-47 N '54. (MIRA 7:12)
(Hosiery)

RAKHLIS, I., starshiy inzhener mekhanizatsii; ROYTENBURD, A., inzhener mekhanizatsii (Odesskiy port).

Overall mechanization of unloading soybeans from tanker vessels.
Mor.flot 16 no.3:6-10 Mr '56. (MLRA 9:7)
(Soybeans--Transportation) (Cargo handling)

ROYTER, A.V.

Representations of cyclic groups of the fourth order by integral
matrices. Vest. LGU 15 no.19:65-74 '60. (MIRA 13:9)
(Matrices)

ROYTER, A.V. (Kiyev)

Category of representations. Ukr. mat. zhur. 15 no.4:448-452
'63. (MIRA 17:4)

NAZAROVA, L.A.; ROYTER, A.V.

Integral representations of a symmetrical third-order group.

Ukr. mat. zhur. 14 no.3:271-288 '62.

(MIRA 15:9)

(Groups, Theory of)

ROYTER, A.V.

Categories with divisibility and integral representations.
Dokl. AN SSSR 153 no.1:46-48 N '63. (MIRA 17:1)

1. Institut matematiki AN UkrSSR. Predstavleno akademikom
P.S. Novikovym.

REITER, A.F. (1974)

Uniqueness in the category of representations over a complete
local Dedekind ring. Izv. Mat. Zhur. 17 no. 2:127-129 '55.

(MIRA 18:8)

84909

S/043/60/019/004/012/015XX
C 111/ C 333

16,2000

AUTHOR: Royter, A. V.

TITLE: On the Representations of a Cyclic Group of Order Four by
Integral Matrices |6

PERIODICAL: Vestnik Leningradskogo universiteta, Seriya matematiki,
mekhaniki i astronomii, 1960, Vol.19, No.4, pp.65-74

TEXT: A representation of the group G by integer matrices is defined
to be a homomorphism of G into the automorphy group of a free
abelian group. Two representations $\varphi : G \rightarrow \{A_i\}$ and
 $\psi : G \rightarrow \{B_i\}$ are equivalent, if $A_i = C^{-1} B_i C$, where C is an
integer matrix, the determinant of which is ± 1 in absolute value.

Diederichsen (Ref.1) considered the representations of the cyclic
group of fourth order and showed that irreducible representations
of this group exist of arbitrary power. The author proves this
result to be wrong: there exist only g irreducible representations
and their power is ≤ 4 .

Lemma 1: Let R be a free abelian group, B an endomorphism of R ,
... of B . Every basis of S can be completed to a basis of R .
 $\alpha(x)$, $\beta(x)$ and $f(x)$ are

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On the Representations of a Cyclic Group of Order Four by Integral Matrices

integer polynomials in x . Let A be an integer matrix such that $\varphi(A) = 0$ (A effects in the grid R); let S be the kernel of the endomorphism $g(A)$. According to lemma 1 there exists a subgrid T so that $S \oplus T = R$. Let $\bar{A}$ be defined as the endomorphism of A which is bounded on T , i. e. from $A(t) = t_1 + s_1$, where $t \in T$, $t_1 \in T$, $s_1 \in S$, it is assumed to follow $\bar{A}(t) = t_1$. Then

- 1.) the subgrid S is admissible relative to $A(s \in S \rightarrow A(s) \in S)$.
- 2.) $\bar{A}$ satisfies the equation $f(\bar{A}) = 0$. Theorem: If A is an integer matrix. $A^4 = E$, then there exists an integer unimodular matrix C such that $C^{-1}AC$ is decomposed into boxes of the following nine types:

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C 111/ C 333

On the Representations of a Cyclic Group of Order Four by Integral Matrices

$$\begin{pmatrix} 1 & 1 & 0 & 1 \\ 0 & 0 & -1 & 0 \\ 0 & 1 & 0 & 0 \\ 0 & 0 & 0 & -1 \end{pmatrix}, \begin{pmatrix} 1 & 2 & 0 & 0 \\ 0 & 0 & -1 & 1 \\ 0 & 1 & 0 & 0 \\ 0 & 0 & 0 & -1 \end{pmatrix}, \begin{pmatrix} 1 & 1 & 0 & 0 \\ 0 & 0 & -1 & 1 \\ 0 & 1 & 0 & 0 \\ 0 & 0 & 0 & -1 \end{pmatrix},$$

$$\begin{pmatrix} 0 & -1 & 1 \\ 1 & 0 & 0 \\ 0 & 0 & -1 \end{pmatrix}, \begin{pmatrix} 1 & 1 & 0 \\ 0 & 0 & -1 \\ 0 & 1 & 0 \end{pmatrix}, \begin{pmatrix} 0 & -1 \\ 1 & 0 \end{pmatrix}, \begin{pmatrix} 1 & 1 \\ 0 & -1 \end{pmatrix}, (-1)$$

There are 2 non-Soviet references: 1 American and 1 German.

Good 7/7

PAUTOV, N.; ROYTER, G.

At the recommendation of a works council. Sov. profsoiuzy 7 no.17:
41-42 S '59. (MIRA 12:11)

1. Predsedatel' postoyanno deystvuyushchego proizvodstvennogo
soveshchaniya na Odesskom zavode imeni Yanvarского vosstaniya (for
Pautov). 2. Sekretar' postoyanno deystvuyushchego proizvodstvennogo
soveshchaniya na Odesskom zavode imeni Yanvarского vosstaniya (for
Royter).

(Odessa--Cranes, derricks, etc.)

ROYTER, I.M., doktor tekhn. nauk; KOVALENKO, A.Ya., inzh.

Effect of the moisture of rye leaven on the intensity of
biochemical processes and bread quality. Pishch. prom.
no.1:47-55 '65. (MIRA 18:11)

ROYTER, I.M.

GRITSYUK, I.G.; ROYTER, I.M.; FERTMAN, G.I., spetsredaktor.

[Technology of liqueur and vodka production] Tekhnologiya likero-
vedochnogo preizvedstva. Moskva, Gos. izd-vo Ministerstva legkoi
i pishchevoi promyshl., 1953. 310 p. (MLRA 7:7)
(Liqueur) (Vodka)

ROYTER, I. M.

USSR/Chemical Technology. Chemical Products and Their Application -- Fermentation industry, I-27

Abst Journal: Referat Zhur - Khimiya, No 2, 1957, 6468

Author: Royter, I. M.

Institution: Kiev Technological Institute of the Food Industry

Title: Inappropriateness of Heating the Paste for Liquid Yeast by Blowing with Steam

Original

Publication: Tr. Kievsk. tekhnol. in-ta pishch. prom-sti, 1955, 15, 125-131

Abstract: Investigation of the effect of blowing-in steam on the enzymes and other physiologically active substances of flour during preparation of a water-flour paste for liquid yeast. The work was conducted under laboratory and plant conditions. The pastes were prepared with 2nd grade wheat flour and mixtures of 70% 2nd grade wheat flour and 30% rye flour of size grade. Pastes prepared by mixing the flour with water heated to 75-80° were used as controls. The paste was cooled to 50° and inoculated with 15-17% starter after which it was held

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USSR/Chemical Technology. Chemical Products and Their Application -- Fermentation industry, I-27

Abst Journal: Referat Zhur - Khimiya, No 2, 1957, 6468

Abstract: at 50-54° for 16 hours. In a number of experiments the inoculated paste was used to produce yeast, utilizing the proportions paste: water:liquid yeast of 1:1:2. Duration of yeast fermentation was 3-4 hours at 30°. In the course of the work a study was made of dynamics of accumulation of sugar and lactic acid and of changes in quality of liquid yeast depending on rate of heating of the paste, temperature of the paste, flour to water ratio in the paste, and length of time that elapsed before the paste was inoculated. In the inoculated paste a determination was made of initial and final acidity, content of reducing sugars according to Bertrand, computed as maltose, and of water soluble dry substances, by means of a refractometer. In the final yeast a determination was made of the number of yeast cells in million/ml. Under plant conditions there were determined, in addition, the leavening action of yeast, by the "ball" method, within 1 minute, the proliferation factor of the yeast and acidity increase in degrees. In the case when the paste was prepared by blowing-in steam the best results were obtained on heating the paste for 5 minutes. Optimal temperature of paste preparation is 65-70° with a flour:water

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ROYTER, I. M.

ROYTER, I. M.

Mechanical leavening of dough. Khleb. i kond. prom. 1 no.9:5-9 S '57.

(MIRA 10:11)

1. Kiyevskiy tekhnologicheskii institut pishchevoy promyshlennosti
imeni A.I. Mikoyana.

(Bakers and bakeries--Equipment and supplies)

ROYTER, I.M.; BERZINA, N.I.; BASHIROVA, R.S.

Use of table salt in the preparation of liquid yeast. Khleb. i kond.
prom. 1 no.12:11-14 D '57. (MIRA 11:1)

1. Kiyevskiy tekhnologicheskii institut pishchevoy promyshlennosti
imeni A.I. Mikoyana.

(Yeast) (Baking)

STABNIKOV, V.N.; ROYTER, I.M.

"Trudy" of the Kiev branch of the All-Union Scientific-Research Institute of the Alcohol Industry. Spirt. prom. 23 no.2:41-43 '57.
(Alcohol) (MLRA 10:4)

ROYTER, Isaak Menashevich; MIKHELEV, Abram Aronovich; KIROVA, Kira Aleksandrov-
na; KASPERSKAYA, Ye., red.; BESPIYATOV, R., tekhn.red.

[Bakery technician's manual] Kratkii spravochnik tekhnologa khlebo-
pekarnogo proizvodstva. Kiev, Gos. izd-vo tekhn. lit-ry USSR,
1958. 504 p. (MIRA 11:2)
(Bakers and bakeries)

ROYTER, I.M., kand. tekhn. nauk; REN'KAS, N.M., inzh.; BERZINA, N.I.,
kand. tekhn. nauk; KOVALENKO, A.Ya., inzh.

Fermentation activity and propagation of yeast during dough
preparation from wheat flour. Pishch. prom. no.2:69-76 '65.
(MIRA 18:11)

1. Kiyevskiy tekhnologicheskii institut pishchevoy promyshlen-
nosti.

I 23396-66 EMP(j)/EMP(k)/EMP(l)/EMP(t) IJP(c) RM/DJ/JD
ACC NR: AP6000635 SOURCE CODE: UR/0407/65/000/001/0020/0030

AUTHOR: Merkur'yev, A. N. (Moscow); Pechuro, N. S. (Moscow);
Royter, L. A. (Moscow); Gol'din, V. I. (Moscow); Pesin, O. Yu. (Moscow)

ORG: none

TITLE: Media for precision electroerosion machining of metals

SOURCE: Elektronnaya obrabotka materialov, no. 1, 1965, 20-36

TOPIC TAGS: electroerosion machining, metal machining

ABSTRACT: An experimental investigation of the effect of various interelectrode media on the process of electroerosion machining (EEM) of steels is described. Paraffin, naphthene, and aromatic hydrocarbons, mono-, di-, and tri-atomic alcohols, polyethyl-siloxanes (No. 3 and No. 5 silicones), kerosine, Estonian shale resin, and green soap were tested. It was found that the electrode erosion and wear depend on the medium and the power-supply source used. The best results were obtained with No. 3 silicone and tetralin used with longer pulses; the specific erosion and the discharge energy which enhanced the power efficiency of the

ROYTER, I.M., doktor tekhn. nauk; KOVALENKO, A.Ya., inzh.;
LYAKH, Ye.V., inzh.

Effect of salt in rye leaven on the intensity of biochemical
processes and quality of bread. Pishch. prom. no.1:55-64
'65. (MIRA 18:11)

DASHIROVA, R.S.; BENZINA, N.I.; ROYTER, I.M.

Some data on the zymase and maltase activity in baker's
yeasts. Trudy KTIPP no.27:20-23 '63. (MIRA 17:5)

FUCHKO A, Lyubov' Ivanovna; SHKVARKINA, T.I., kand. tekhn. nauk, retsenzent; ROYTER, I.M., kand. tekhn. nauk, retsenzent; AUERMAN, L.Ya., prof., red.; PRITYKINA, L.A., red.

[Practical laboratory work on the technology of bread baking] Laboratornyi praktikum po tekhnologii khlebopecheniia. Moskva, Izd-vo "Pishchevaia promyshlennost'," 1964. 145 p.
(MIRA 17:7)

ROYTER, M.; KOVALENKO, A.Ya.; BERZINA, N.I.; REN'KAS, N.M.

Preparation of sour dough, leaven and liquid yeast in case
of long breaks in work. Trudy KIIPP no.27:23-31 '63.
(MIRA 17:5)

ROYTER, I.M.; KOVALENKO, A.Ya.; LYASKOVSKIY, K.V.; EPSHTEYN, M.M.;
FROLOVA, V.K.

Results of the introduction of a new technological flow
sheet for the making of Kaunas bread with liquid intermediate
products. Trudy KTIPP no.27:3-12 '63. (MIRA 17:5)

1. Sotrudniki Vil'nyusskogo khlebo-makaronnogo kombinata
(for Lyaskovskiy, Epshteyn, Frolova).

ROYTER, I.M.; BERZINA, N.I.

Effect of sodium chloride on the activity of wheat amylases.
Izv. vys. ucheb. zav.; pishch. tekhn. no.4:42-46 '63.

Investigating salt concentration in the liquid phase of
wheat dough. 47-52 (MIRA 16:11)

1. Kiyevskiy tekhnologicheskii institut pishchevoy
promyshlennosti, kafedra khlebopekarnogo proizvodstva.

ROYTER, I.M.; BERZINA, N.I.

Effect of sodium chloride on the activity of wheat proteases
in water-flour suspensions. Izv. vys. ucheb. zav.; pishch.
tekh. no.6:40-45 '63. (MIRA 17:3)

1. Kiyevskiy tekhnologicheskii institut pishchevoy promysh-
lennosti, kafedra khlebopekarnogo proizvodstva.

ROYTER, Isaak Menashevich, kand. tekhn. nauk; DENISENKO, L.P.,
red.; SHAFETA, S.M., tekhn. red.

[Bread making] Khlebopekarnoe proizvodstvo; tekhnologicheskii spravochnik. Izd.3., perer. i dop. Kiev, Gos-
tekhizdat USSR, 1963. 489 p. (MIRA 16:11)
(Bread)

BASHIROVA, R.S.; ROYTER, I.M.

Characteristics of some yeast species from distilleries manufacturing bakers' yeast. Izv.vys.ucheb.zav.; pishch.tekh. no.1:72-76 '63.

(MIRA 16:3)

1. Kiyevskiy tekhnologicheskii institut pishchevoy promyshlennosti, kafedra khlebopekarnogo proizvodstva i kafedra biokhimi i mikrobiologii.

(Yeast)

BERZINA, N.I.; KOVALENKO, A.Ya.; ROYTER, I.M.

Biochemical changes of the protein-proteinase complex in wheat
sponge and dough. Izv.vys.ucheb.zav.; pishch.tekh. 2:49-54
'62. (MIRA 15:5)

1. Kiyevskiy tekhnologicheskii institut pishchevoy promyshlennosti,
kafedra khlebopekarnogo proizvodstva.
(Proteins) (Dough)

ROYTER, I.M.; KOVALENKO, A.Ya.; BERZINA, N.I.; REN'KAS, N.M.

Investigation of the method for preparing the wheat dough
on liquid leavens. Izv. vys. ucheb. zav.; pishch.tekh.
no.2:27-34 '60. (MIRA 14:7)

1. Kiyevskiy tekhnologicheskii institut pishchevoy promyshlennosti,
kafedra khlebopekarnogo proizvodstva.
(Dough)
(Yeast)

ROYTER, I.M.; BENZINA, N.I.; KOVALENKO, A.Ya.; REN'KAS, N.M.

Investigation of the method of preparing wheat dough with
leaven containing table salt. Izv. vys. ucheb. zav.; pishch.
tekh. no.3:56-61 '60. (MIRA 14:8)

1. Kiyevskiy tekhnologicheskii institut pishchevoy promysh-
lennosti, Kafedra khlebopekarnogo proizvodstva.
(Dough)

ROYTER, I.M.

Role of the physical condition of carbon dioxide and air in the formation of the structure of bread crumbs. Izv. vys. ucheb. zav.; pishch. tekhn. no.4:79-84 '61. (MIRA 14:8)

1. Kiyevskiy tekhnologicheskoy institut pishchevoy promyshlennosti, kafedra khlebopekarnogo proizvodstva.
(Bread) (Carbon dioxide)

ROYTER, I.M.; RUDEKO-GRITSYUK, G.Ye.

Nomogram for determining the heat transfer coefficient during the
condensation of water-alcohol vapors. Trudy KTIPP no.21:85-89 '59.
(MIRA 14:1)

(Alcohol) (Water vapor)
(Heat---Transmission)

ROYTER, I.M.; BERZINA, N.I.; BASHIROVA, R.S.; REN'KAS, N.M.

Changes in the properties of liquid yeasts during their prolonged
cultivation in the presence of sodium chloride. Trudy KTIPP no.21:
91-98 '59. (MIRA 14:1)

(Yeast)

BERZINA, N.I.; ROYTER, I.M.

Effect of sodium chloride on the physical properties of gluten and
dough from wheat flour. Trudy KTIPP no.22:76-83 '60. (MIRA 14:3)
(Dough) (Gluten) (Salt)

KOVALENKO, A.Ya.; BERZINA, N.I.; ROYTER, I.M.

Effect of rye flour used in the preparation of liquid yeasts
on the quality of wheat bread. Trudy KTIPP no.22:84-90 '60.
(MIRA 14:3)

(Bread) (Yeast) (Rye)

ROYTER, I.M.; BERZINA, N.I.; BASHIROVA, R.S.; REN'KAS, N.M.

Comparative activity of the yeast strains "Krasnodarskaya" and "Krasnodarskaya salty yeast" used in the production of liquid yeasts. Mikrobiologiya 29 no. 4:595-599 J1-Ag '60.

(MIRA 13:10)

1. Kiyevskiy tekhnologicheskij institut pishchevoy promyshlennosti.
(YEAST)

BERZINA, N.I.; ROYTER, I.M.

Effect of table salt concentration in the substance on the
fermentation activity of yeast. Izv.vys.ucheb.zav.; pishch.tekh.
no.5:51-56 '59. (MIRA 13:4)

1. Kiyevskiy tekhnologicheskij institut pishchevoy promyshlennosti,
kafedra khlebopekarnogo proizvodstva.
(Yeast)

ROYTER, I.M.; BASHIROVA, R.S.

Use of lactic bacteria from the "E-1" yeast strain for the preparation of liquid yeasts by the continuous system. Izv.vys. ucheb.zav.; pishch.tekh. no.6:52-54 '59. (MIRA 13:5)

1. Kiyevskiy tekhnologicheskoy institut pishchevoy proty-shlennosti. Kafedra khlebopekarnogo proizvodstva.
(Yeast)

ROYTER, I.M.; BERZINA, N.I.; KOVALENKO, A.Ye.

Changes in gluten during the preparation of wheat dough. Izv.
vys.ucheb.zav.; pishch.tekh. no.6:55-60 '59.
(MIRA 13:5)

1. Kiyevskiy tekhnologicheskij institut pishchevoy promyshlennosti.
Kafedra khlebopekarnogo proizvodstva.
(Dough--Analysis) (Gluten)

ROYTER, I.M.; BASHIROVA, R.S.

Proteolytic activity of the "E-1" a new strain of thermophilic
lactic acid bacteria. Izv.vys.ucheb.zav.; pishch.tekh. no.1:
56-59 '60. (MIRA 13:6)

1. Kafedra tekhnologii khlebopekarnogo proizvodstva Leningradskogo
tekhnologicheskogo instituta pishchevoy promyshlennosti.

(Protein)

(Lactic acid bacteria)

ROYTER, I.M.; BERZINA, N.I.; BASHIROVA, R.S.; v proizvodstvennykh
ispytaniyakh uchastvovali: KOVALENKO, A.Ya., assistant; MEDOVAYA,
E.I., mikrobiolog

Effect of table salt in the preparation of liquid yeasts.
Trudy KTIPP no.17:57-68 '57. (MIRA 13:1)

1. Kiyevskiy khlebozavod No.5 (for Medovaya).
(Yeast) (Baking)

BEREZINA, N.I.; ROYTER, I.M.; BASHIROVA, R.S.

Fermenting of dough prepared with liquid yeast and table salt.
Trudy KTIPP no.17:75-80 '57. (MIRA 13:1)
(Yeast) (Baking)

ROYTER, I.M.

Aeration of dough with carbon dioxide under pressure. Trudy
KTIPP no.19:123-130 '58. (MIRA 12:12)
(Dough)

ROYTER, I.M.; KOVALENKO, A.Ya.; BERZINA, N.I.; GITERMAN, F.L.

Investigating the technology of preparing dough containing the
scalded flour leavened with thermophile lactic acid bacteria.
Izv.vys.ucheb.zav.; pishch. tekhn. no.6:58-65 '61. (MIRA 15:2)

1. Kiyevskiy tekhnologicheskii institut pishchevoy promyshlennosti,
kafedra khlebopekarnogo proizvodstva.
(Dough)(Lactic acid bacteria)

L 42065-65 EWT(m)/ENG(m) RWH/RM

ACCESSION NR: AP5010917

UR/0286/65/000/007/0103/0103

AUTHORS: Bakhmann, R.; Krans, U.; Royter, Kh.; Shvakhula, G.; Varneke, D.; ²²B
Velend, V.; Vol'f, F.

TITLE: A method for obtaining anionites. Glass 39, No. 169785/5

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no, 7, 1965, 103

TOPIC TAGS: anionite, monomer, polymer, vinyl, copolymerization, copolymer
solubility, alkyl, organic solvent, amination

ABSTRACT: This Author Certificate presents a method for obtaining anionites by copolymerization of one or several monovinyl aromatic substances with one or several bonding agents. This is followed by introducing a haloid alkyl and by amination during which copolymerization is conducted in the medium of organic solvents in which monomers are soluble, while polymers are practically insoluble. To increase the thermal stability of the strong sorbents, the solvents are added in the amounts of 0.25-10% by weight of the monomers.

ASSOCIATION: none

Card 1/2

L 42065-65		
ACCESSION NR: AP5010917		
SUBMITTED: 01Nov63	ENCL: 00	SUB CODE: 00 , 00
NO REF SOV: 000	OTHER: 000	
<i>am</i> Card 2/2		

L 42064-65 EWT(m)/EWG(m) RWH/RM

ACCESSION NR: AP5010918

UR/0286/65/000/007/0103/0103

AUTHORS: Baikhmann, R.; Kraus, U.; Royter, Kh.; Shvakhula, G.; Varneke, D.; ¹⁴Velend, V.; Vol'f, F. ⁸

TITLE: A method for obtaining sulfocationites, Class 39, No. 162786 ¹⁵

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 7, 1965, 103

TOPIC TAGS: sulfocationite, polymer, monomer, sulfonation, vinyl, epoxy, initiator, organic solvent

ABSTRACT: This Author Certificate presents a method for obtaining sulfocationites by sulfonating a copolymer of one or several monovinyl aromatic compounds with one or several bonding agents containing vinyl or epoxy groups. The copolymerization is conducted in the presence of initiators in the medium of an organic solvent. To obtain mechanically strong sorbents, the organic solvent is added during polymerization in the amount of 0.25-5% by weight of the monomers.

ASSOCIATION: none

SUBMITTED: 01Nov63

ENCL: 00

SUB CODE: 00, GC

NO REF SOV: 000

OTHER: 000

ROYTER, L., inzh.; EPSHTEYN, I., inzh.

Industrial construction in Noril'sk. Na stroi. Ros. 3 no.10:
16-17 0 '62. (MIRA 16:6)

(Noril'sk--Industrial plants)

YASTRZHEMSKAYA, O.V.; ANDREYEVA, V.S.; NENICH, V.N.; ROYTER, M.K.; DRINFEL'D,
P.Ye.; BILYM, L.M.

Starting up and operating experience of the indene-benzofuran resin
section of the Kadiyevka Coke Chemical Plant. Koks i khim. no.10:40-44
'58. (MIRA 11:11)

1. Kadiyevskiy koksokhimicheskiy zavod.
(Kadiyevka--Resins, Synthetic) (Indene) (Benzofuran)

SOV/68-58-10-13/25

AUTHORS: Yastrzhem'skaya, O.V., Andreyeva, V.S., Nenich, V.N.,
Royter, M.K., Drinfel'd, P.Ye., and Bilym, L.M.

TITLE: ~~From Experience of Putting the Indene-coumarone Resin~~
Plant on the Kadiyevka Coking Works into Operation (Opyt
puska i raboty tsekha inden-kumaronovykh smol na Kadiye-
vskom koksokhimicheskom zavode)

PERIODICAL: Koks i Khimiya, 1958, Nr 10, pp 40 - 44 (USSR)

ABSTRACT: The plant was put into operation in 1955. The scheme of
the operation of the plant as designed is shown in
Figure 1 and changes introduced are shown in Figures 2
and 3. Aluminium chloride is used as a catalyst in a
proportion of 0.35% of the raw material. The polymeris-
ation process begins at 20 - 30 °C and is finished at
110 °C. The main difficulties were encountered in the
distillation plant due to the incorrect design of the
evaporators and due to an excessive corrosion of the
condenser. All resin pipe-lines were found to be too long
and complicated. Cooling drums for resin were
insufficient. The initial losses of hydrocarbons amounted
to 18-20% and were reduced (by unspecified methods) to

Card 1/2

SOV/68-58-10-13/25

From Experience of Putting the Indene-coumarone Resin Plant on the
Kadiyevka Coking Works into Operation

6-8%. Softening temperature of the resin produced
100 - 110 °C. It is pointed out that in order to decrease
corrosion, an enamelled distillation apparatus and a
reactor for the preparation of aluminium chloride complex
should be introduced. There are 3 figures.

ASSOCIATIONS: UKhIN and Kadiyevskiy koksokhimicheskiy zavod
(Kadiyevka Coking Works)

Card 2/2

ROYTMAN, M.P. (Moskva)

Report form on morbidity with temporary disability. Sov. zdrav.
19 no.3:31-35 '60. (MIRA 14:6)

(MEDICAL RECORDS)

PROCESS AND PROPERTIES INDEX																									
The influence of the removal from catalytic agents (through pressure reduction) of adsorbed gases upon the rate of catalysis of hydrogen peroxide. V. A. ROITMAN. <i>Ber. Physik. Wiss. Forsch. inst. physik. Chem.</i> 2, 42 54(1920). The catalysis of H_2O_2 by Pt proceeds faster under reduced than under normal pressure. The immediate effect of a moderate removal from the catalytic agent of adsorbed gases (by pressure reduction) is to increase its activity. As the gases are readsorbed the catalyzer returns to its original state. Excessive reduction of pressure (0.001 mm and below) and removal of adsorbed gases from the catalyzer introduces a new factor which tends to decrease the activity of the catalytic foil. This effect of extreme pressure reduction and removal of adsorbed gases cannot be reversed. The above is true of air, O and H, although each of the latter gases is characterized by a specific effect (augmentation in the case of H, retardation in the case of O). A Pt foil satd. with H can remain under H_2O_2 for many hrs. without losing its catalytic activity, regardless of the fact that O is generated upon it. The fall in the catalytic activity of the foil in the expts. conducted under reduced pressure occurs particularly when the foil is removed from the H_2O_2. During the catalysis the foil is apparently capable of absorbing O only very slowly. The rate of H_2O_2 catalysis by Pt foil decreases as the volume of gases adsorbed by the catalyzer increases. Excessive removal of gases from the catalytic agent (through pressure reduction) apparently inactivates the Pt foil, probably because of a reduction in the active surface area of the catalyzer. The possibility is not excluded (although it is doubtful) that a small amount of gases adsorbed, hence the reduction in the catalytic activity of the agent accompanying excessive reduction in pressure may be due not only to surface changes, but to a reduction beyond the favorable limit of the gases adsorbed by the foil as well. H_2O_2 catalysis occurs not on the extreme surface zone of the Pt foil, but on the surface of the ionic zone. The O generated in the process of catalysis is unable to reach the surface of the metal and to enter into reaction with the H adsorbed by the foil. B. S. LUKINS																									
AND A. A. METALLURGICAL LITERATURE CLASSIFICATION																									

LIST AND NO. ORDER																										PROCESSES AND PROPERTIES INDEX																																																																																																			
Effect of the sorption of gases on the catalytic activity of catalysts for the decomposition of hydrogen peroxides. V. A. Roiter and I. G. Shaffan. <i>J. Phys. Chem. U.S.S.R.</i> 4, 461-4 (1933); cf. preceding abstract.—Low pressure (below 0.1 mm.) for a period of several days reduces the catalytic activity of platinumized Pt for the catalysis of H_2O_2. The previous observation of the authors (<i>Trudii S. Pisk-Khimich. Konferentsii</i>) explained the poisoning of the catalyst by volatile admixts. in the O_2. Expt. showed that removal of adsorbed gases from platinumized and smooth Pt increases the activity of the catalyst. Readsorption again decreases activity. As this effect was observed even in low vacuum it follows that the activation lies in the removal of the gases from the inactive centers. The authors see in this proof that in the catalytic process there takes part not only centers with large energy of adsorption but also the remaining surface of the Pt. F. H. Rathmann																																																																																																																													
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PROCESSES AND PROPERTIES INDEX																									
1ST AND 2ND ORDERS													3RD AND 4TH ORDERS												
<i>ca</i> Catalytic decomposition of vapors of hydrogen peroxide. V. A. Roiter and S. S. Gaikhman. <i>J. Phys. Chem.</i> (U. S. S. R.) 4, 465-8 (1933).—A comparison of activity of decompn. of H_2O_2 in the liquid and the vapor states, on smooth and on platinized Pt, on MnO_2, and on PbO_2, shows that the catalytic activity in both cases changes in the same order. The reaction for both the liquid and vapor states of H_2O_2 is unimol. The assumption is made that the film of water capable of forming on the pores of the catalyst at a pressure of about 0.1 mm. and room temp., is sufficient for the mechanism of the catalyst in vapor and soln. to be the same. Similar conditions may have a place in the majority of technical catalytic processes. G. Faerman																									
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1ST AND 2ND ORDERS										PROCESSES AND PROPERTIES									
CO										Effect of the sorption of gases on the catalytic activity of catalysts for the decomposition of hydrogen peroxides. U. V. A. Rolter and I. G. Shafran. <i>Rev. ukrain. viss. Forsch.-Inst. physik. Chem.</i> 4, 20 351(1954). - See C. A. 28, 12501.									
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V. A. Roiter and S. S. Gaukhman. <i>Ber. ukrain. inst. Fizich. Khim.</i> 4, 359 (1931). See C. I. 28, 12241.																																																																													
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The adsorption of oxygen and the catalysis of hydrogen peroxide by platinum. V. A. Roiter and M. G. Leperson. *Ber. ukrain. wiss. Forsch.-Inst. physik. Chem.* 4, 41-8 (1934).---Most of the O adsorbed by Pt in anode polarization and all the H adsorbed by Pt in cathode polarization reacts with H_2O_2 . In the electrolysis of dil. H_2SO_4 , there is no sorption of electrolytic gases at either electrode, if a sufficient H_2O_2 concn. is maintained (anode, 0.5%; cathode, 1.8%). The results are similar with platinized and smooth Pt electrodes. Cathode polarization increases the catalytic activity of Pt for decompn. of H_2O_2 , anode polarization decreases the activity (Spitalsky and Kagan, *C. A.* 21, 691), but the activity is const. if the electrolysis goes on with H_2O_2 present. After anode polarization the potential of the Pt electrode is less pos. than after cathode polarization, so that decrease of catalytic activity and decrease of electrode potential occur together. Cf. following abstr. W. B. Keighton

2

The mechanism of the catalysis of hydrogen peroxide by platinum. V. A. Ruzic, *Rev. ukrain. vuz. Forsh. Inst. physik. Chem.* 4, 49 (1954); (1. prechshing abstr.). In the catalytic decompn. of H_2O_2 by Pt the whole surface of the catalyst is concerned, not the active regions alone. On the active centers of the catalyst H_2O_2 is decompd. to H_2O and adsorbed O atoms; on the other regions H_2O_2 acts as a reducing agent, $H_2O_2 = 2H^+ + O_2 + 2 \text{ electrons}^-$ (1). This is complemented on the active centers by $O_{adsorbed} + H_2O + 2 \text{ electrons}^- = 2OH^-$ (2). The final step in the reaction is $2H^+ + 2OH^- = 2H_2O$. Thus the final active centers can be freed of adsorbed O by reaction with H_2O_2 , either from the inactive regions of the catalyst or from the soln., and the rate of H_2O_2 decompn. depends upon the H_2O_2 concn. only if the soln. is very dil. or if the active centers are very few. In any other cases change in H_2O_2 concn. affects reactions (1) and (2) equally. If the Pt is anodically polarized in absence of H_2O_2 , the adsorbed O atoms may combine chemically with the Pt on the active centers and diminish the catalytic

activity of the Pt. Cathodic polarization activates the Pt surface because of the reduction of these compds. The process is affected by the pH of the soln. because reactions (1) and (2) produce H^+ and OH^- ions.
W. R. Krighton

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Influence of sorbed gas on the catalytic activity of hydrogen peroxide decomposition catalysts. H. V. A. BORIS and I. G. SCHAFMAN (Ber. Ukrain. wiss. Forsch. physikal. Chem., 1935, 4, 29-33; of. A., 1930, 1831).—The activity of Pt is increased by evacuation at 0.1 mm. The original activity is restored on exposure to the atm.; and it is concluded that the whole surface is involved in the decomp. reaction. An irreversible poisoning effect due to diffusion of the P_2O_5 drying agent occurs at 10^{-6} mm. R. S.																																																																																																																																																											
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Mechanism of the catalysis of hydrogen peroxide by platinum. V. A. Roriza (Ber. Ukrain. wiss. Forsch. physikal. Chem., 1935, 4, 49-53).— It is suggested that O adsorbed at the active centres is reduced electrolytically by H_2O_2 on the inactive surface. The theory is discussed in connexion with experimental data. R. S.																													
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<i>BC</i> <i>a-1</i> Kinetics of the process at the iron anode of a galvanic element. V. BORRZA and V. JUSA (Acta Physicochim. U.R.S.S., 1936, 4, 135-144).—The results of polarization determinations can be expressed by $\Delta e = abI/(1+bI)$, where e is the potential and I the c.d. By analogy with the Langmuir equation it is suggested that the potential decrease is due to the adsorption of a substance of which the concn. in the electrolyte $\propto$ c.d. R. S.																																																			
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PROCESSES AND PROPERTIES INDEX

Adsorption of hydrogen and nitrogen on iron-molybdenum ammonia catalysts. V. ROITER, S. GAUCHMANN, and M. LERFSON (Acta Physicochim. U.R.S.S., 1936, 4, 145-158).--The adsorption of H₂ on Fe-Mo (I) and Fe-Mo-Al₂ (II) catalysts is rapid and reversible at low temp., but slow and irreversible between 0° and 450°. Adsorption is slowest with old (I) and fastest with (II). The presence of Al₂O₃ increases the no. of active centers and prevents the reduction of catalyst surface by recrystallization, but has little effect on the adsorptive capacity. In the case of N₂, the rapid, reversible adsorption could alone be observed up to 450°, and the heats of adsorption for (I) and (II) are 5500 and 12,000 g.-cal., respectively.

R. S.

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<i>24</i> Kinetics of the ionization of hydrogen on a platinized platinum electrode. V. A. Roitert and E. S. Poluyan. <i>J. Phys. Chem.</i> (U. S. S. R.) 7, 773 84(1966). Rapid data on the anode polarization of a hydrogen electrode satisfy the equation $I = I_0(1 - e^{-\alpha\Delta\phi/RT})$ where $\Delta\phi$ = polarization potential, α is equal to 0.50 without a preliminary secondary cathode and 0.7 with one. At 25° the rate of ion formation as calcd. from k is of the order of 10^{-7} mol./sq. cm. and the temp. coeff. is about 1.2 to 1.3 for 10°. Up to $\Delta\phi = 0.015$ v. the Friley-Gruz and Volmer (cf. C. A. 25, 452) equation $I = k(e^{-\alpha\Delta\phi/RT} - e^{\beta\Delta\phi/RT})$ holds for the total anode-cathode process. R. H. Rathmann <i>2</i>																																																			
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5084. Mechanism of Processes at the Oxygen Electrode. W. Rottler and R. Jampolokaja. <i>Acta Physicochimica</i>, 7, 2, pp. 247-280, 1957. <i>In German.</i>—The polarisation phenomena at the Pt-O₂ electrode have been re-investigated. For cathodic polarisation in N/10 H₂SO₄ the observations agree with the equation $\eta = a - b \log I$ ($b = 0.11$ to 0.12), which is analogous to that governing H₂ overvoltage. The value of b approximates that calculated from the theory of Erdey-Gruz and Volmer. Temperature influences the polarisation considerably, affecting the value of a much more than that of b. A similar relationship to the above holds for anodic polarisation. The primary process in the ionisation of oxygen is $O_2 + e \rightarrow O^- + O$, and that in the discharge $OH^- - e \rightarrow OH$. The possibility of the production of H₂O₂ is considered. A. J. M.																																																																																																																														
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THE MECHANISM OF THE REACTIONS AT AN OXYGEN ELECTRODE.
V. A. Roiter and R. B. Yampolskaya. *J. Phys. Chem.*
(U.S.S.R.) 9, 763-72 (1937).—The cathode polarization
of O on a smooth Pt electrode in 0.1 N H₂SO₄ obeys the
equation $\eta_a = a - b \log I$ where b has value between 0.11
and 0.12. In the case of anode polarization the same
equation holds with $b =$ about 0.130 ($\eta_a = b \log I$).
With increasing temp. polarization decreases owing chiefly
to change in the coeff. a , while b remains almost const.
The Volmer and Heyrovsky theory (C. J. 25, 142) for
discharges is also applicable to electrode ionization and the
value of $\alpha + \beta \sim 1$. The primary reaction is supposed
to be $O_2 + e \rightarrow O^- + O$. F. H. Rathmann

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Lev Vladimirovich Piarzhenskii, V. A. Rotter and S. M. Moskvich. <i>Bull. acad. sci. U. R. S. S., Classe sci. math. nat., Sér. chim.</i> 1938, 703-74.—An obituary. J. G. Tulpin																			
ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION																			
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A-1

Kinetics of the catalytic synthesis of ammonia. M. T. RUSOV and V. A. ROITER (J. Phys. Chem. Russ., 1938, 11, 390-399). The rate of NH_3 formation in presence of an industrial catalyst at $450^\circ \propto [\text{H}_2][\text{N}_2]^{1/2} p^{-1/2}$, p being the total pressure. The factor $p^{-1/2}$ is due to an inhibition by adsorbed NH_3 ; when p is >10 atm. the adsorption of NH_3 becomes practically independent of p , and the factor $p^{-1/2}$ disappears. The adsorption of NH_3 by the working catalyst can be estimated by a rapid cooling of the catalyst and analysis of the gases occluded in it. The rate of formation is max. at $[\text{N}_2]:[\text{H}_2] = 1:2$. The activation energy between 400° and 475° is 9 kg.-cal. J. J. B.

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